

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 97-076

ADOPTION OF REVISED SITE CLEANUP REQUIREMENTS AND RESCISSION OF ORDER NO. 92-057 FOR:

IMTT-RICHMOND-CA  
BULK STORAGE TERMINAL  
RICHMOND, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. **Site Location:** IMTT-Richmond-CA owns and operates a petroleum and chemical bulk storage facility, which is presently used to store gasoline, diesel fuel, bunker fuel, and cutter stock as well as a variety of organic chemicals including dioctylphthalate, ketones, alcohols (ethanol), and organic esters (acetates and butyrates).

The 25 acre facility is located at 100 Cutting Boulevard in the City of Richmond's inner harbor. Cutting Boulevard is adjacent to the north, the Santa Fe Channel adjoins the south, Manson Construction and Engineering Company and the Lauritzen Channel are to the east, and Channel Lumber is directly to the west.

2. **Purpose:** This Order updates a previous SCR to reflect a change in ownership of the property, the results of additional groundwater monitoring, and the selection of remedial actions to prevent the migration of petroleum-impacted groundwater into the Santa Fe Channel.
3. **Site History:** Texaco Refining and Marketing Incorporated owned and operated the Texaco Bulk Storage Terminal, from 1952 until September 15, 1995. The facility under Texaco's ownership consisted of: an aboveground tank farm (14 tanks, total capacity approximately 22.5 million gallons) where gasoline, diesel fuel, cutter stock, and bunker fuel were stored; a truck-loading rack for gasoline and diesel fuel; a tank farm and truck-loading rack for photographic chemicals; a wharf used as a tanker ship and barge loading and unloading area; and a rail car off-loading area. This facility will continue to operate as a bulk petroleum and chemical storage and distribution terminal, with generally the same tanks and products listed above, under IMTT's ownership.

On December 8, 1987, an unknown amount of leaded gasoline spilled on the ground during a product transfer between two aboveground petroleum storage tanks. During subsequent cleanup operations, approximately 5,000 to 6,000 gallons of liquid-phase hydrocarbons were

recovered. Over 30 groundwater monitoring wells have been installed at the Facility since that time.

4. **Regulatory Status:** This site is subject to the following Board orders:

- Site Cleanup Requirements (Order No. 92-057) adopted May 20, 1992
- NPDES General Industrial Storm Water Permit

5. **Site Hydrogeology:** Fill material is present from ground surface to a maximum depth of approximately 6 feet below ground surface in varying thicknesses. Bay mud is present directly beneath the fill at a maximum depth of 18 feet and gradually thins out to a depth of approximately 6 feet below ground surface as you move south to north across the site. Native silty clay is present directly beneath the bay mud to a maximum depth of 29 feet below ground surface and is generally encountered at shallower depths as you move south to north. Groundwater is consistently found at shallower depths at the northern end of the site as compared to the southern end of the site adjacent to Santa Fe Channel, indicating an overall hydraulic gradient direction toward the channel.

A tidal survey performed during July 1996 consisted of collecting depth-to-water measurements at both high and low tides from wells located near the Santa Fe Channel and in the channel itself. The study confirmed the potential for tidal flushing to occur in those areas very near the channel.

6. **Summary of Groundwater Contamination:** Groundwater monitoring data and soil sample analyses performed between July 1992 and February 1997 have shown petroleum hydrocarbons and lead in both the interior and on the perimeter of the site, as follows:

- a. In April 1995, the former owner reported the discovery of cracks in the sidewalls of an oil-water separator currently used as a sediment settling basin for storm water runoff and no longer used as an oil-water separator. Results of a preliminary investigation showed that soil and groundwater approximately 40 feet from surface water in Santa Fe Channel had been impacted by petroleum hydrocarbons at the following maximum concentration levels:

Soil - TPH-g and TPH-d at 12,000 mg/kg each  
- benzene at 20 mg/kg  
- total oil and grease at 44,000 mg/kg

Groundwater- TPH-g at 550 mg/l  
- TPH-d at 400 mg/l  
- benzene at 9.5 mg/l  
- total oil and grease at 110 mg/l

In August 1996, IMTT submitted a report describing the repairs that had been made to the former oil-water separator under Texaco's ownership. This report stated that when the separator was drained and cleaned, a stain, presumably from petroleum product in the surrounding groundwater, was observed seeping into the

separator through a crack in the sidewall. IMTT is implementing a continuing inspection and maintenance program of the separator and has installed two new monitoring wells upgradient of the separator to determine whether petroleum-contaminated groundwater is present and could potentially impact the Santa Fe Channel.

- b. A plume of petroleum hydrocarbons in the diesel range appears to follow the alignment of subsurface piping that transects the north-central portion of the site inland from the Santa Fe Channel. Concentrations of TPH-d range from 27 mg/l at MW-33 at the upgradient end to 2.0 mg/l in OW-5 at the downgradient end. A separate plume of gasoline-range petroleum hydrocarbons and benzene appears to exist in the vicinity of the pump house. TPH-g and benzene have been consistently measured above 10 mg/l and 100 µg/l, respectively, in MW-18 since 1992, but the extent of the plume appears to be limited because neighboring wells have generally had non-detectable levels of these two constituents.
- c. At the request of Board staff, IMTT analyzed groundwater samples collected during the first quarter 1997 monitoring event for the presence of the gasoline oxygenate additive Methyl Tertiary Butyl Ether (MTBE). MTBE was detected in eight wells, all but two of which appear to be located along the alignment of subsurface piping that transects the north-central portion of the site. Concentrations ranged from 1300 µg/l at the upgradient end of this alignment to 34 µg/l in one of the recently installed point-of-compliance boundary wells at the downgradient end. At present there are no regulatory criteria for MTBE in terms of human health or toxicity to aquatic organisms.

MTBE has been added to the list of constituents to be monitored in the Self-Monitoring Program accompanying this Order for the following reasons: 1) MTBE reporting provides additional site information which may aid the characterization and dating of fuel releases, and 2) MTBE may in some instances behave as a conservative tracer thereby providing valuable additional biodegradation and hydrogeological fate and transport information. Preferential migration pathways of fuels may be estimated with MTBE acting as a leading indicator at the head of the plume because MTBE has a much higher solubility and mobility in water than does benzene.

- d. During soil characterization activities conducted in 1993, lead was discovered in samples from 9 out of 17 soil borings drilled in fill material adjacent to the Santa Fe Channel at concentrations exceeding either the total threshold limit concentration (TTLC) of 1,000 mg/kg, or the soluble threshold limit concentration (STLC) of 5 mg/l defining a hazardous waste pursuant to Title 22 of the California Code of Regulations. Subsequent sampling of groundwater monitoring wells both by conventional purging and filtering, and by using a low-flow-purge technique and analyzing unfiltered samples, yielded non-detectable concentrations of lead at reporting limits of 20 to 50 µg/l. Staff concluded after several rounds of sampling that the lead is adsorbed onto soil particles, is not mobile in groundwater, and is therefore not likely to pose a threat to the environment through a groundwater migration pathway. All soil excavated from the site, however, should be

analyzed for lead and, if found to meet hazardous waste criteria, should be properly handled and disposed of according to regulations pertaining to hazardous waste contained in Title 22.

7. **Remedial Action Plan**

**Point-of-Compliance Boundary Monitoring Wells:** In February 1997, IMTT installed three shallow groundwater monitoring wells approximately 50 feet inland from the Santa Fe Channel. These wells are intended to better define the occurrence of petroleum hydrocarbons upgradient of the oil-water separator and serve, along with two other wells at the eastern and western ends of the 50 foot alignment, as point-of-compliance boundary monitoring wells. Due to significant tidal fluctuations in monitoring wells less than 50 feet from the channel, groundwater quality data collected from wells within the 50-foot zone may not be representative of groundwater quality beneath the site.

**Nitrate Supplementation Pilot Study:** IMTT has proposed a one-year pilot study to evaluate the application of nitrate supplement to the ground surface as a potential remedial option for in-situ treatment of the residual petroleum hydrocarbons in the groundwater beneath the site. Nitrate supplementation of groundwater will occur at two locations upgradient of the newly installed point-of-compliance monitoring wells. These locations correspond to diesel and gasoline dissolved product plumes in areas where product releases occurred in the 1980's. The nitrate will become the terminal electron acceptor during the respiration of microorganisms indigenous to soil and groundwater at the site which are capable of metabolizing petroleum hydrocarbons.

8. **Basis for Groundwater Compliance Criteria**

- a. **General:** State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives.

State Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

- b. **Beneficial Uses:** The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in 23

CCR 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels.

The existing and potential beneficial uses of shallow groundwater underlying and adjacent to the site include:

- Industrial process water supply
- Industrial service water supply
- Freshwater replenishment to surface waters (San Francisco Bay)

At present, there is no reported or expected beneficial use of groundwater underlying the site other than freshwater replenishment to the adjacent Santa Fe Channel which is part of San Francisco Bay. The shallow groundwater at the site does not qualify for municipal or domestic use because TDS concentrations in most monitoring wells exceed the TDS limits for potential sources of drinking water established in Board Resolution NO. 89-39.

The existing and potential beneficial uses of San Francisco Bay include:

- Industrial process supply or service supply
- Water contact and non-contact recreation
- Wildlife habitat
- Fish migration and spawning
- Navigation
- Estuarine habitat
- Shellfish harvesting
- Preservation of rare and endangered species

- c. **Basis for Groundwater Compliance Criteria:** The groundwater compliance criteria for the site are based on applicable water quality objectives. Cleanup to this level will result in acceptable residual risk to humans and the environment.
9. **Basis for 13304 Order:** The previous owner of this facility has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance. IMTT has assumed responsibility for environmental cleanup.
10. **Cost Recovery:** Pursuant to California Water Code Section 13304, the discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.

11. **CEQA:** This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.
12. **Notification:** The Board has notified the discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.
13. **Public Hearing:** The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

**IT IS HEREBY ORDERED**, pursuant to Section 13304 of the California Water Code, that the discharger (or its agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

**A. PROHIBITIONS**

1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.
2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

**B. REMEDIAL ACTION PLAN AND GROUNDWATER COMPLIANCE CRITERIA**

1. **Implement Remedial Action Plan:** The discharger shall implement the nitrate supplementation pilot study and quarterly monitoring of point-of-compliance boundary wells as described in Finding No. 7 and Task No. 1, and , if requested by the Executive Officer, the contingency remediation plan described in Task No. 4.
2. **Groundwater Compliance Criteria:** Since regulatory criteria for protection of human health and aquatic life do not currently exist for total petroleum hydrocarbons (TPH), maximum contaminant concentration levels in the point-of-compliance boundary monitoring wells will be based on established criteria for BTEX fuel components only.

The following maximum allowable concentration levels (MACLs) in groundwater shall be met in all point-of-compliance wells identified in the Self-Monitoring Program:

Constituent	MACL (µg/l)	Basis
Benzene	71	USEPA 10 <sup>-6</sup> cancer risk for consumption of aquatic organisms
Toluene	5,000	Marine Chronic USEPA AWQC Additional Toxicity Information
Ethylbenzene	43	10% of Marine Acute USEPA AWQC Additional Toxicity Information

## C. TASKS

### 1. NITRATE SUPPLEMENTATION PILOT STUDY

Submit a work plan and schedule, acceptable to the Executive Officer, for the implementation of a nitrate supplementation study for remediation of residual petroleum hydrocarbons in groundwater upgradient of the point-of-compliance boundary wells. Included shall be a plan for monitoring and determining the effectiveness of nitrate supplementation in reducing petroleum hydrocarbon concentrations in groundwater. The plan shall also include a description of bioremediation indicator parameters to be monitored, a protocol for sampling and analysis, including descriptions of analytical methods to be used, and a description of data evaluation techniques.

**Work Plan and Schedule Due: August 30, 1997**

**Implementation Of Approved Plan: 60 days from Approval**

### 2. EVALUATION OF NITRATE SUPPLEMENTATION STUDY

Submit a technical report, acceptable to the Executive Officer, evaluating the effectiveness of nitrate supplementation in removing residual petroleum hydrocarbons from groundwater. The report shall include, at a minimum:

- Summary of effectiveness in controlling contaminant migration;
- Comparison of contaminant concentration trends in the study area with those outside of the study area, including trends in the point-of-compliance wells;
- Additional remedial actions proposed, including time schedule if remediation efforts do not indicate substantial progress; and,
- A long-term monitoring and corrective action program.

**COMPLIANCE DATE: November 30, 1998**

3. **STATISTICAL TREND ANALYSIS OF GROUNDWATER MONITORING DATA**

Submit a work plan, acceptable to the Executive Officer, for performing a statistical trend analysis of groundwater monitoring data and documenting the results in the quarterly Self-Monitoring Program Groundwater Monitoring Reports. The analysis selected should be able to show the existence of increasing or decreasing concentration trends at a 95% confidence level.

**COMPLIANCE DATE:** **August 30, 1997**

4. **CONTINGENCY REMEDIATION PLAN**

Submit a work plan and schedule, acceptable to the Executive Officer, for active remediation at or upgradient of the point-of-compliance boundary monitoring wells if groundwater monitoring analytical results exceed one or more maximum contaminant concentration levels, established in B.2. above, for three or more consecutive quarters.

**COMPLIANCE DATE:** **90 days after requested  
by Executive Officer**

5. **EVALUATION OF NEW TECHNICAL INFORMATION**

Submit a technical report acceptable to the Executive Officer evaluating new technical information which bears on the approved remedial action plan and cleanup standards for this site. In the case of a new cleanup technology, the report should evaluate the technology using the same criteria used in the feasibility study. Such technical reports shall not be requested unless the Executive Officer determines that the new information is reasonably likely to warrant a revision in the approved remedial action plan or cleanup standards.

**COMPLIANCE DATE:** **90 days after requested  
by Executive Officer**

6. **Delayed Compliance:** If the discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the discharger shall promptly notify the Executive Officer and the Board may consider revision to this Order.

**D. PROVISIONS**

1. **No Nuisance:** The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).



2. **Good O&M:** The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.
3. **Cost Recovery:** The discharger shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the discharger over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.
4. **Access to Site and Records:** In accordance with California Water Code Section 13267(c), the discharger shall permit the Board or its authorized representative:
  - a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
  - b. Access to copy any records required to be kept under the requirements of this Order.
  - c. Inspection of any monitoring or remediation facilities installed in response to this Order.
  - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
5. **Self-Monitoring Program:** The discharger shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.
6. **Contractor / Consultant Qualifications:** All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered engineer.
7. **Lab Qualifications:** All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).
8. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.

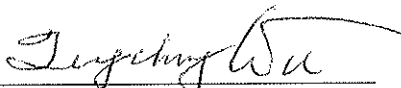
9. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the discharger shall report such discharge to the Regional Board by calling (510) 286-1255 during regular office hours (Monday through Friday, 8:00 to 5:00).

A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

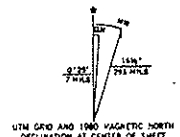
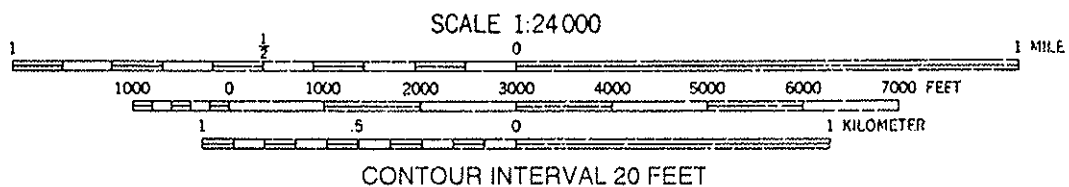
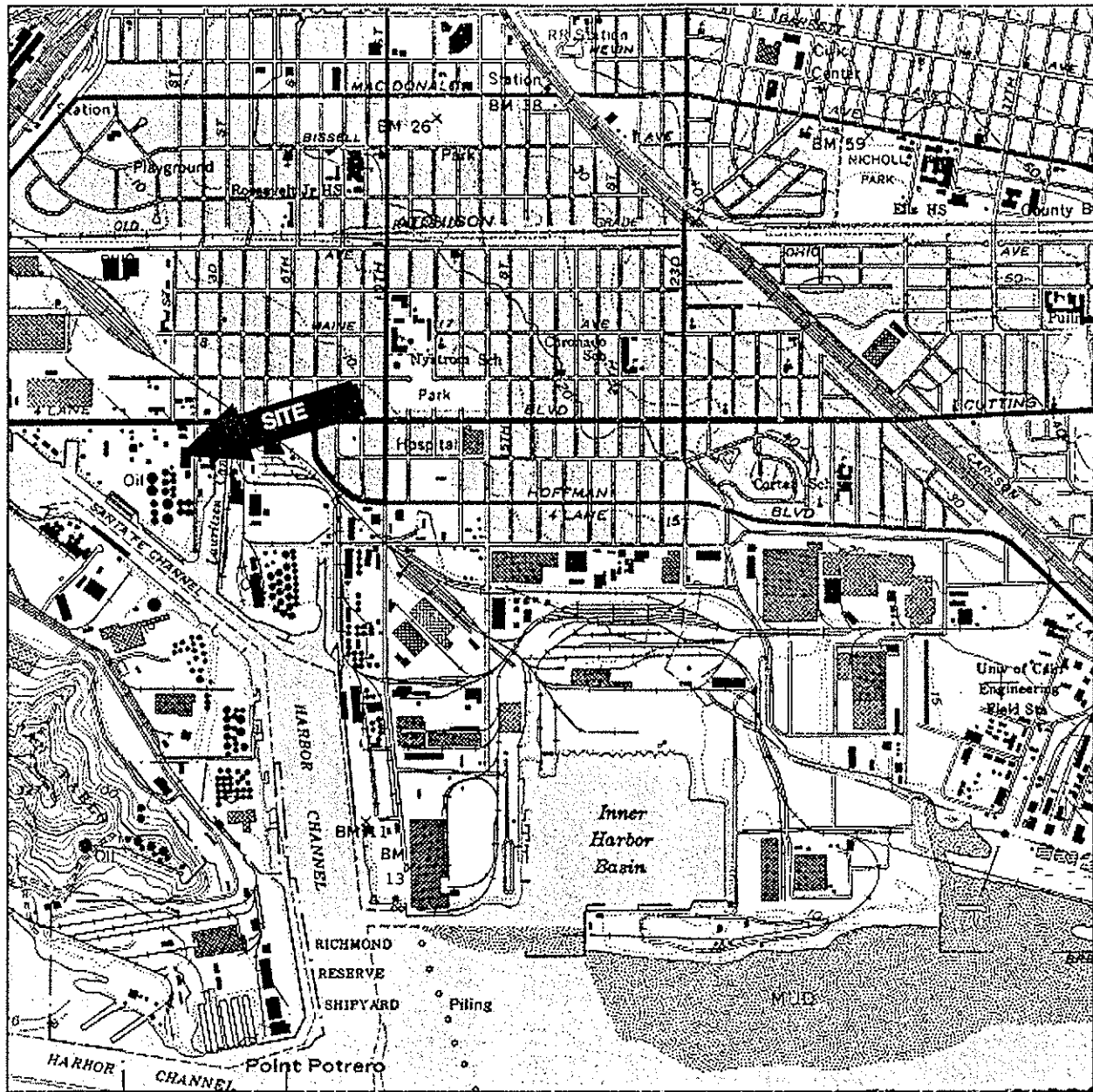
This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

10. **Rescission of Existing Order:** This Order supersedes and rescinds Order No. 92-057
11. **Periodic SCR Review:** The Board will review this Order periodically and may revise it when necessary.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 18, 1997.

  
for Loretta K. Barsamian  
Executive Officer

Attachments: Figure 1 - Site Location Map  
Figure 2 - Site Plan Map  
Self-Monitoring Program



Reference: U.S.G.S. 7.5-minute Richmond, California Quadrangle, Photorevised 1980.

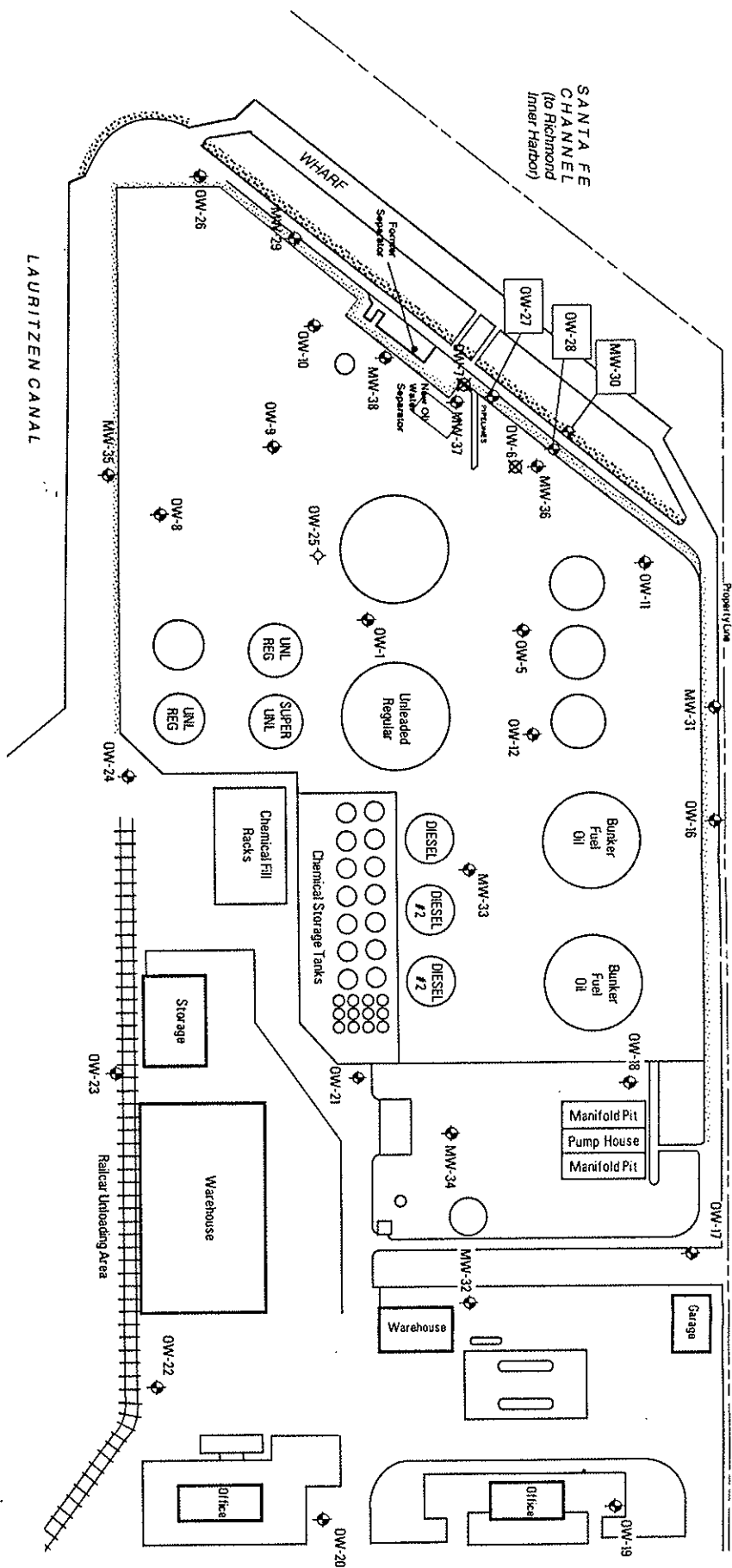


Project No. RC0327.000

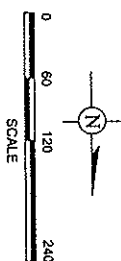
**SITE LOCATION MAP**  
IMTT Richmond Terminal  
100 West Cutting Boulevard  
Richmond, California

FIGURE  
**1**

CHANNEL LUMBER



- EXPLANATION**
- OW-26 ♦ Groundwater Monitoring Well
  - OW-25 ♦ Soil Boring Location
  - OW-6 □ Abandoned Well



**GERAGHTY & MILLER, INC.**  
Environmental Services  
A Heidemij Company

Project No. RC0327.001

**SITE PLAN**  
IMTT Richmond Terminal  
100 West Cutting Boulevard  
Richmond, California

**FIGURE 2**  
REVISION  
3/19/97

CUTTING BLVD.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

IMTT-RICHMOND-CA  
BULK STORAGE TERMINAL  
RICHMOND, CONTRA COSTA COUNTY

1. **Authority and Purpose:** The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. 97-076 (Site Cleanup Requirements).
2. **Monitoring:** The discharger shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Quarterly Monitoring

Point-of-Compliance Boundary Wells (OW-10, OW-11, MW-36, MW-37, and MW-38)

Semi-Annual Monitoring (1st and 3rd Quarters)

Wells near the perimeter of the site (OW-5, OW-16, OW-17, OW-19, OW-20, OW-22, OW-23, OW-24, OW-26, OW-27, OW-28, MW-29, MW-30, MW-31, and MW-35)

Annual Monitoring (1st Quarter)

Wells in the interior of the site (OW-1, OW-8, OW-9, OW-12, OW-18, OW-21, MW-32, MW-33, and MW-34)

**Analytes and Analytical Methods:** All groundwater samples will be analyzed according to the following table:

<u>Constituent</u>	<u>Analytical Method</u>
Total Petroleum Hydrocarbons (TPH) as gasoline and diesel	USEPA Method 8015, modified
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)	USEPA Method 8020
MTBE	USEPA Method 8020

Constituent

Analytical Method

Nitrate Supplementation Study Parameters as proposed in the work plan required under Task 1 of SCR No. 97-076 and approved by the Executive Officer

To be determined

The discharger shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above table. The discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Quarterly Monitoring Reports:** The discharger shall submit quarterly monitoring reports to the Board no later than 45 days following the end of the quarter (e.g. report for first quarter of the year due April 30). The first quarterly monitoring report (for the second quarter of 1997) shall be due on **July 30, 1997**. The reports shall include:
  - a. **Transmittal Letter:** The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the discharger's principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
  - b. **Groundwater Elevations:** Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map shall be prepared for each monitored water-bearing zone.
  - c. **Groundwater Analyses:** Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).
  - d. **Statistical Trend Analysis of Groundwater data:** A statistical trend analysis shall be performed for all constituents which have been detected for four or more consecutive quarters starting at the date of adoption of this Self-Monitoring Program. Graphs of estimated trend lines shall be provided for all constituents that exhibit a significant trend at the 95% confidence level.
  - e. **Groundwater Extraction:** If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a

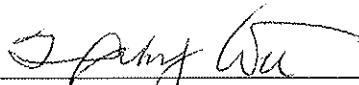
whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical mass removal results shall be included in the fourth quarterly report each year.

- f. **Status Report:** The quarterly report shall describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following quarter.
4. **Violation Reports:** If the discharger violates requirements in the Site Cleanup Requirements, then the discharger shall notify the Board office by telephone as soon as practicable once the discharger has knowledge of the violation. Board staff may, depending on violation severity, require the discharger to submit a separate technical report on the violation within five working days of telephone notification.
5. **Other Reports:** The discharger shall notify the Board in writing prior to any site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.
6. **Record Keeping:** The discharger or his/her agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Board upon request.
7. **SMP Revisions:** Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the discharger. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Loretta K. Barsamian, Executive Officer, hereby certify that this Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with site cleanup requirements established in this Board's Order No. 97-076.
2. Is effective on the date shown below.

Date Ordered: June 18, 1997

  
for Loretta K. Barsamian  
Executive Officer